

REMARKS

Claims 1-29 are pending in this application. Of these pending claims, Claims 1-29 stand rejected. By way of this paper, Claims 1, 4, 8, 11, 14, 16, 19, 23 and 26 have been amended.

Claims 1, 8, 14, 16 and 23 have been amended to specifically refer to electrographic printers. Support for this amendment is found in paragraph [0002] of the published application.

Claims 1, 8, 14, 16 and 23 have been further amended to replace the alternative language "edge pixels or interior pixels" with the positive recitation of "at least one of the edge pixels and the interior pixels." Support for this amendment is found in paragraph [0070] of the published application.

Claim 1, 8, 14, 16 and 23 have also been amended to specify that the decreased digital value is the same for all edge pixels and the decreased digital value is the same for all interior pixels. Support for this amendment is found in paragraph [0072] of the published application.

Claims 4, 11, 19 and 26 have been amended to reflect the fact that the digital value of edge and/or interior pixels are only decreased, and not increased, as set forth in parent claims 1, 8, 16 and 23 respectively.

The foregoing amendments and following remarks are believed to be fully responsive to the outstanding office action, and are believed to place the application in condition for allowance.

General Background

The present invention relates to finding, within a rasterized image, pixels that can be assigned a reduced pixel value, and therefore be developed using less toner, while maintaining acceptable image quality.

The claims call for the step of defining each pixel as either a background pixel, interior pixel, or an edge pixel. As defined in the present application, a background pixel has relatively little or no marking information, as contrasted with foreground pixels that have some marking information. An edge pixel is defined as a transition between background and foreground. An interior pixel is a foreground pixel that is not an edge pixel, a one line pixel or a two line pixel. See paragraph [0053] of the published application. Edge pixels can also be considered to be those pixels that have at least one adjacent non toned pixel, and

interior pixels can be considered to be those pixels that have all adjacent pixels toned. See paragraph [0091].

Claim Rejections – 35 U.S.C. § 102

Claims 1-29 stand rejected under 35 U.S.C. §102 as being anticipated by the Matsukubo et al. ('952) reference. The rejection, in so far as it is applied to the amended claims, is respectfully traversed.

The purpose of the Matsukubo patent is to smooth edges of characters so as not to appear jagged when printed. Matsukubo creates a 2X resolution bit map achievable with a laser system. The smoothing process is then applied by changing half (at original resolution) of the edge pixels. See Figures 22, 23 and 25. While Matsukubo finds edges in the array of pixels, there is no disclosure of changing all of the edge pixels equally. In fact, Matsukubo goes to great lengths to discuss discrimination circuits and methods to distinguish between half tone dots and characters which are to be modified. See paragraphs [0009], [0123], [0128] and [0139]. In Matsukubo, edge pixels do not all have the same value assigned to them. The new assigned value for any edge pixel is based on interpolation methods. The result is edge pixels in the array of pixels being assigned different values based on image content. See paragraph [0168] and Figure 25. Thus, Matsukubo does not modify the complete edge pixel set as claimed in the present application, wherein a new value is assigned to all of the edge pixels and/or the interior pixels. The difference between the Matsukubo process and the present invention results from the intent of Matsukubo to smooth edges verses the intent of the present invention to conserve toner.

Claim Rejections – 35 U.S.C. § 101

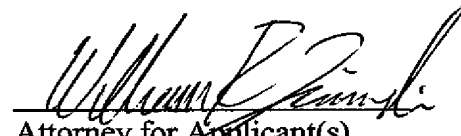
Claims 1-15 stand rejected under 35 U.S.C. §101 as not falling within one of the four statutory categories of invention. These claims have been amended so as to be tied to the statutory class of a particular apparatus. That apparatus being an electrographic printer.

CONCLUSION

It is respectfully submitted that, in view of the above amendments and remarks, this application is now in condition for allowance, prompt notice of which is earnestly solicited.

The Examiner is invited to call the undersigned in the event that a phone interview will expedite prosecution of this application towards allowance.

Respectfully submitted,


Attorney for Applicant(s)
Registration No. 45,287

William R. Zimmerli/rgd
Rochester, NY 14650
Telephone: 585-588-2758
Facsimile: 585-477-1148

If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.